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Nota di contenuto	Part A. The Microbiota of the Gastrointestinal Tract -- 1. The Upper Gastrointestinal Tract - Esophagus and Stomach -- 2. Characterizing and Functionally Defining the Gut Microbiota: Methodology and Implications -- 3. Microbiota of the Gastrointestinal Tract in Infancy -- 4. Identification of the Microbiota in the Aging Process -- Part B. Common Organisms and Probiotics -- 5. Escherichia coli Nissle 1917 -- 6. Probiotics of the Acidophilus Group: Lactobacillus acidophilus, delbrueckii subsp. bulgaricus and johnsonii -- 7. Lactobacillus rhamnosus GG -- 8. Lactobacillus reuteri -- 9. The Use of Lactobacillus casei and Lactobacillus paracasei in Clinical Trials for the Improvement of Human Health -- 10. Beneficial Influences of Lactobacillus plantarum on Human Health and Disease -- 11. Use of Bacillus in Human Intestinal Probiotic Applications -- 12. Bifidobacteria as Probiotic Organisms: An Introduction -- 13. Bifidobacterium animalis spp. lactis -- 14. Bifidobacterium bifidum -- 15. Bifidobacterium breve -- 16. Bifidobacterium longum -- 17. Bifidobacterium longum spp. infantis -- 18. Common Organisms and Probiotics: Saccharomyces boulardii -- 19. Common Organisms and Probiotics: Streptococcus thermophilus (Streptococcus salivarius subsp. thermophilus) -- 20. Complexities and Pitfalls in the Production of Multispecies Probiotics: The Paradigmatic Case of VSL#3 Formulation and Visbiome -- 21. The Viruses of the Gut Microbiota -- Part C. Food

Substrates Important to the Microbiota -- 22. Dietary Fiber, Soluble and Insoluble, Carbohydrates, Fructose, and Lipids -- 23. Prebiotics: Inulin and Other Oligosaccharides -- 24. The Benefits of Yogurt, Cultures, and Fermentation -- Part D. Basic Physiologic Effects of Microbiota -- 25. Dysbiosis -- 26. Immunologic Response in the Host -- 27. Gastrointestinal Microbiota and the Neural System -- 28. Effect on the Host Metabolism -- 29. Relationship Between Gut Microbiota, Energy Metabolism, and Obesity -- 30. Taxonomic and Metagenomic Alterations of Microbiota in Bariatric Surgery -- 31. The Influence of Microbiota on Mechanisms of Bariatric Surgery -- Part E. Management of Disease and Disorders by Prebiotics and Probiotic Therapy -- 32. Allergic and Immunologic Disorders -- 33. Probiotics Use in Infectious Disease (Respiratory, Diarrhea, and Antibiotic-Associated Diarrhea) -- 34. FMT in *Clostridium difficile* and Other Potential Uses -- 35. Probiotics in the Treatment of Pouchitis -- 36. Probiotic Treatment in Crohn's Disease -- 37. Treatment of Inflammatory Bowel Disease in Ulcerative Colitis -- 38. Treatment of Functional Bowel Disorders With Prebiotics and Probiotics -- 39. Celiac Disease, the Microbiome, and Probiotics -- 40. Probiotics for the Treatment of Liver Disease -- 41. The Prevention and Treatment of Radiation and Chemotherapy-Induced Intestinal Mucositis -- 42. The Role of the Brain - Gut - Microbiome in Mental Health and Mental Disorders -- 43. Management of Disease and Disorders by Prebiotics and Probiotic Therapy: Probiotics in Bacterial Vaginosis.

Sommario/riassunto

The Microbiota in Gastrointestinal Pathophysiology: Implications for Human Health, Prebiotics, Probiotics and Dysbiosis is a one-stop reference on the state-of-the-art research on gut microbial ecology in relation to human disease. This important resource starts with an overview of the normal microbiota of the gastrointestinal tract, including the esophagus, stomach, ileum, and colon. The book then identifies what a healthy vs. unhealthy microbial community looks like, including methods of identification. Also included is insight into which features and contributions the microbiota make that are essential and useful to host physiology, as is information on how to promote appropriate mutualisms and prevent undesirable dysbioses. Through the power of synthesizing what is known by experienced researchers in the field, current gaps are closed, raising understanding of the role of the microbiome and allowing for further research.
